

CLAIMS

1. A lead air control apparatus of a stratified scavenging two-cycle engine, the stratified scavenging two-cycle engine comprising: a carburetor (30) connected to an air cleaner (32, 32a, 32b) and having a throttle valve (31); an insulator (21) inserted between the carburetor (30) and a cylinder (3) for a purpose of insulating heat; and an intake passage (22) formed in the insulator (21) and connecting between an intake port (13) provided in the cylinder (3) and the carburetor (30), characterized in that

the apparatus comprises:

a pair of first air passages (23, 23) formed in the insulator (21), and respectively connected to a pair of scavenging ports (10, 10) provided in the cylinder (3);

a pair of second air passages (24, 24) respectively connecting between the air cleaner (32, 32a, 32b) and the respective first air passages (23, 23), and arranged in an approximately parallel state; and

air control valves (25, 25) provided in the respective second air passages (24, 24), and controlling an air amount of a lead air for scavenging.

2. The lead air control apparatus of the stratified scavenging two-cycle engine according to claim 1, characterized in that

the air control valves (25, 25) are provided near the air

cleaner (32, 32a, 32b) or are integrally formed with the air cleaner (32, 32a, 32b);

the respective second air passages (24, 24) are provided with connection members (35, 35) respectively connected to the first air passages (23, 23); and

an inner peripheral wall from each of the first air passages (23, 23) to each of the second air passages (24, 24) is formed smoothly and continuously along a length direction of the air passages.

3. The lead air control apparatus of the stratified scavenging two-cycle engine according to claim 2, characterized in that a connection portion in an end portion of each of the connection members (35, 35) is formed such that a change of an internal diameter cross sectional area between the connection portion and a connected portion is small.

4. The lead air control apparatus of the stratified scavenging two-cycle engine according to claim 2 or 3, characterized in that each of the connection members (35, 35) has a flexibility.

5. The lead air control apparatus of the stratified scavenging two-cycle engine according to any one of claims 1 to 4, characterized in that the respective first air passages (23, 23) are arranged so as to be approximately parallel to each other, and each of the first air passages is formed as an approximately linear air passage.

6. The lead air control apparatus of the stratified scavenging two-cycle engine according to any one of claims 1 to 5, characterized in that the respective first air passages (23, 23) have air flow paths (14, 14) formed within the cylinder (3); and

the pair of airflow paths (14, 14) and the pair of scavenging ports (10, 10) are arranged so as to be connectable on a same plane.